

## REMARKS

The Title is changed to, “SEPARATE READ AND WRITE SERVERS WITH READ ACCESS DURING WRITES” and is thought to satisfy the rules.

Claim 2 was objected to and is now canceled. The limitations of claim 2 are now in amended claim 1.

Claims 2, 8, 15, 18, and 21 are canceled without prejudice. New claims 23-29 are added to claim the invention in alternative language.

The Office Action does not establish that claims 1-4, 6-9, 11-12, 14-15, 17-18, and 20-21 are anticipated under 35 USC §102(e) by US patent number 6,523,032 to Sunkara et al. (hereinafter “Sunkara”). The rejection is respectfully traversed because the Office Action does not show that all the limitations in the claims are taught by Sunkara. In regards to original independent claims 1, 7, 11, 14, 17, and 20, the rejection is now moot in view of the amendments made to these claims. For example, the limitations of claim 2 (now canceled) are now incorporated into independent claim 1. Similar amendments are made to claims 7, 11, 14, 17, and 20 to include the limitations of now-canceled claims 8, 12, 15, 18, and 21, respectively.

The Office Action does not show that Sunkara teaches all the limitations of claim 1 as amended. For example, the limitations include not only separate servers for processing read requests and write requests, but also in response to a write request, writing the replacement data element to a new location in one of the storage elements while leaving the current data element accessible for read requests processed by the read servers; locking a file meta-data element that references the current storage location; updating the file meta-data element to reference the new location having the replacement data element; and unlocking the file meta-data element after updating. These limitations are clearly neither taught nor suggested by Sunkara.

The cited section of Sunkara teaches the opposite of these limitations. That is, Sunkara’s system invalidates an entry that is to be written so that a stale value will not be read from a read-only copy (col. 6, ll. 7-14). The claim limitations clearly indicate that the current data element remains accessible while processing the write request. Locking and update of the meta-data control access to the new data. Furthermore, the limitations clearly indicate that the replacement data is written to a new storage location, and Sunkara makes no mention

of new storage locations. Thus, the Office Action does not show that claim 1 is anticipated, and the rejections of claims 7, 11, 14, and 17 are similarly deficient.

The Office Action does not show that Sunkara anticipates claim 3. The limitations of claim 3 include allocating a new storage area at the new location prior to writing the replacement data; and deallocating an old storage area at the current storage location while the file meta-data element is locked. It is respectfully submitted that the cited section of Sunkara makes no mention of allocation or deallocation. Furthermore, these limitations are not inherent in Sunkara's processing of a write request. Specifically, Sunkara appears to overwrite the currently used storage location(s) instead of allocating new storage. Thus, the claim limitations are not inherent. Furthermore, the Office Action does not provide a proper foundation for establishing inherency (see MPEP 2112).

Claims 4 and 6 depend from claim 1 and claim 9 depends from claim 7, and the Office Action fails to establish that these claims are anticipated for at least the reasons set forth above for the independent claims.

The Office Action also fails to show all the further limitations of claims 17 and 20. For example, both claims 17 and 20 set forth a plurality of load balancers, and none of the cited sections of Sunkara teach or suggest a plurality load balancers. Furthermore, claim 17 has each load balancer coupled to a respective client application, and claim 20 has each load balancer coupled to the plurality of read servers. These further limitations are also not shown to be taught by Sunkara. Thus, the Office Action does not establish that claims 17 and 20 are anticipated.

Withdrawal of the rejection under 35 USC §102(e) is respectfully requested in view of the arguments presented above.

The Office Action fails to establish that claims 5, 10, 13, 16, 19, and 22 are unpatentable under 35 USC §103(a) over Sunkara in view of "IBM Technical Disclosure Bulletin No. NN9204146" by Kazar et al. (hereinafter "Kazar"). The rejection is respectfully traversed because the Office Action fails to show that all the limitations are suggested by the references, fails to provide a proper motivation for modifying the teachings of Sunkara with teachings of Kazar and fails to show that the combination could be made with a reasonable likelihood of success.

As explained above, for independent claims 1, 7, 11, 14, 17, and 20, the Office Action does not show that Sunkara teaches or suggests the limitations of these claims. Nor does

Kazar suggest the limitations of these claims. Directly or indirectly, claim 5 depends from claim 1, claim 10 depends from claim 7, claim 13 depends from claim 11, claim 16 depends from claim 14, claim 19 depends from claim 17, and claim 22 depends from claim 20. Therefore, the Office Action does not show that the Sunkara-Kazar combination shows or suggests all the limitations of claims 5, 10, 13, 16, 19, and 22 for at least the reasons set forth above for claims 1, 7, 11, 14, 17, and 20.

The alleged motivation suggest that “it would have been obvious … to modify the teaching of Sunkara with the teachings of Kazar to include a means for distributing read requests to the read servers in a round-robin distribution with the motivation to provide for a policy that balances the load without incurring a large overhead, (See Kazar Page 2 Paragraph 2).” It is respectfully submitted that this alleged motivation is conclusory and lacks evidence to support the conclusion. For example, the Office Action does not provide any evidence that Sunkara’s load balancing mechanism has a large overhead that would be desirable to reduce. Furthermore, the Office Action provides no evidence that the overhead of Sunkara’s load balancing mechanism would actually be reduced. The alleged motivation lacks supporting evidence, is conclusory, and therefore, improper.

The rejection of claims 5, 10, 13, 16, 19, and 22 over the Sunkara-Kazar combination should be withdrawn because the Office Action fails to show all the limitations are suggested by the combination, fails to provide a proper motivation for combining the references, and fails to show that the combination could be made with a reasonable likelihood of success.

Withdrawal of the rejections and reconsideration of the claims are respectfully requested in view of the remarks set forth above.

No extension of time is believed to be necessary for consideration of this response. However, if an extension of time is required, please consider this a petition for a sufficient number of months for consideration of this response. If there are any additional fees in connection with this response, please charge Deposit Account No. 50-0996 (HPCO.026PA).

Respectfully submitted,

CRAWFORD MAUNU PLLC  
1270 Northland Drive, Suite 390  
Saint Paul, MN 55120  
(651) 686-6633

By:   
Name: LeRoy D. Maunu  
Reg. No.: 35,274